

**Amendments to Claims:**

Please amend the claims as follows:

1. (Currently Amended) A magnetic actuator assembly comprising:
  - a spool surrounded by a coil;
  - a primary plate disposed at a first end of said spool;
  - a secondary plate disposed at a second end opposite said first end;
  - a plunger slidably disposed within respective annular portions defined by said spool and said secondary plate and surrounded by said coil energizable to urge said plunger toward said primary plate;
  - a first spring biasing a ball against a supply valve seat configured in one of said primary plate and a valve seat assembly,
  - a non-magnetic rod having a first portion in operable communication with said plunger and a second portion in contact with said ball opposite said first spring wherein said rod is stepped and defined by a shoulder defining an interface between said first and second portions said rod, said second portion configured to be translatable within a ~~said~~ bore while allowing fluid communication between said supply valve seat and exhaust valve seat, said first portion configured to seal said exhaust valve seat when said shoulder abuts said exhaust valve seat, and wherein said first portion of said rod is detachably coupled to said plunger via a cavity configured in said plunger, said cavity allowing said first portion of said rod to float therein to allow said second portion of said rod to align with at least one of said bore and said supply valve seat, and



a second spring biasing said plunger and rod toward said ~~an~~ exhaust valve seat configured in said one of said primary plate and said valve seat assembly opposite said supply valve seat,

wherein said supply valve seat and said exhaust valve seat are in fluid communication with each other via said ~~a~~ bore in said one of said primary plate and said valve seat assembly connecting said supply valve seat and said exhaust valve seat, said bore having a control port intermediate said supply valve seat and said exhaust valve seat.

2. (Cancelled)

3. (Cancelled)

4. (Cancelled)

5. (Cancelled)

6. (Previously Presented) The assembly of claim 1 further comprising a stop disposed within a stepped annular portion defined by said primary plate, said stop having an opening corresponding to a perimeter defining said first portion of said rod, said stop configured to control an air gap setting of said plunger.



7. (Original) The assembly of claim 6, wherein said stop prevents contact between said plunger and said primary plate when said plunger is fully translated toward said primary plate and reduces magnetic flux acting on a fluid in said bore when said exhaust valve seat is closed.

8. (Original) The assembly of claim 1, wherein said exhaust valve seat is in fluid communication with an exhaust port creating an exhaust fluid path therebetween distal from a magnetic flux path when said coil is energized.

9. (Original) The assembly of claim 1, wherein said spool includes terminals extending therefrom for connection with an energizing power source.

10. (Original) The assembly of claim 1, wherein said spool and said secondary plate include one of a slotted and a tabbed interface configured to control concentricity therebetween while reducing a secondary magnetic air gap between said secondary plate and said plunger.

11. (Original) The assembly of claim 1, wherein said first and second springs maintain contact between said plunger, said rod, and said ball.

12. (Previously Presented) The assembly of claim 11, wherein said second spring has a second preload less than a first preload of said first spring, said second preload configured to be



adjustable to control the amount of said magnetic flux needed to overcome a net total preload of said first and second springs opposing said magnetic flux.

13. (Original) The assembly of claim 12, wherein said plunger effected by said net total preload of said first spring and said second spring in series communication when said plunger matches said net total preload.

14. (Original) The assembly of claim 1, wherein the assembly is a pro seal configuration, said first and second springs opposing each other allowing reduced axial forces between components of the assembly thus projecting less radial forces.

15. (Original) The assembly of claim 1, wherein integration of said supply valve seat, said exhaust valve seat, and said control port with said one of said primary plate and said valve assembly allows for custom de-energized stroke setting.

16. (Cancelled)

17. (Cancelled)

18. (Cancelled)

19. (Cancelled)



Appl. No. 10/612,155  
Amdt. Dated November 18, 2004  
Reply to Office Action of October 8, 2004

20. (Cancelled)

21. (Cancelled)

22. (Cancelled)

23. (Cancelled)

24. (Cancelled)